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Security Council

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Note by the President of the Security Council

At its 6335th meeting, held on 9 June 2010 in connection with the item entitled "Non-proliferation", the Security Council adopted resolution 1929 (2010).

In paragraph 4 of the resolution, the Security Council requested the Director General of the International Atomic Energy Agency to communicate to the Council all his reports on the application of safeguards in the Islamic Republic of Iran.

Accordingly, the President herewith circulates the report of the Director General dated 21 February 2013 (see annex).

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Annex

Letter dated 21 February 2013 from the Director General of the International Atomic Energy Agency addressed to the President of the Security Council

I have the honour to enclose herewith the report requested by the Security Council in its resolution 1929 (2010), which I have submitted today to the Board of Governors of the International Atomic Energy Agency (see enclosure).

I should be grateful if you would bring the present letter and the enclosed report to the attention of all Members of the Security Council.

(*Signed*) Yukiya **Amano**

Enclosure*

Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions in the Islamic Republic of Iran

Report by the Director General

A. Introduction

1. This report of the Director General to the Board of Governors and, in parallel, to the Security Council, is on the implementation of the NPT Safeguards Agreement[1] and relevant provisions of Security Council resolutions in the Islamic Republic of Iran (Iran).

2. The Security Council has affirmed that the steps required by the Board of Governors in its resolutions[2] are binding on Iran.[3] The relevant provisions of the aforementioned Security Council resolutions[4] were adopted under Chapter VII of the United Nations Charter, and are mandatory, in accordance with the terms of those resolutions.[5]

3. This report addresses developments since the Director General's previous report (GOV/2012/55, 16 November 2012), as well as issues of longer standing. It focuses on those areas where Iran has not fully implemented its binding obligations, as the full implementation of these obligations is needed to establish international confidence in the exclusively peaceful nature of Iran's nuclear programme.

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* Circulated to the Board of Governors of the International Atomic Energy Agency under the symbol GOV/2013/6.

[1] The Agreement between Iran and the Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (INFCIRC/214), which entered into force on 15 May 1974.

[2] The Board of Governors has adopted 12 resolutions in connection with the implementation of safeguards in Iran: GOV/2003/69 (12 September 2003); GOV/2003/81 (26 November 2003); GOV/2004/21 (13 March 2004); GOV/2004/49 (18 June 2004); GOV/2004/79 (18 September 2004); GOV/2004/90 (29 November 2004); GOV/2005/64 (11 August 2005); GOV/2005/77 (24 September 2005); GOV/2006/14 (4 February 2006); GOV/2009/82 (27 November 2009); GOV/2011/69 (18 November 2011); and GOV/2012/50 (13 September 2012).

[3] In resolution 1929 (2010), the Security Council: affirmed, inter alia, that Iran shall, without further delay, take the steps required by the Board in GOV/2006/14 and GOV/2009/82; reaffirmed Iran's obligation to cooperate fully with the IAEA on all outstanding issues, particularly those which give rise to concerns about the possible military dimensions of the Iranian nuclear programme; decided that Iran shall, without delay, comply fully and without qualification with its Safeguards Agreement, including through the application of modified Code 3.1 of the Subsidiary Arrangements; and called upon Iran to act strictly in accordance with the provisions of its Additional Protocol and to ratify it promptly (paras. 1-6).

[4] The United Nations Security Council has adopted the following resolutions on Iran: 1696 (2006); 1737 (2006); 1747 (2007); 1803 (2008); 1835 (2008); and 1929 (2010).

[5] By virtue of its Relationship Agreement with the United Nations (INFCIRC/11, Part I.A), the Agency is required to cooperate with the Security Council in the exercise of the Council's responsibility for the maintenance or restoration of international peace and security. All Member States of the United Nations agree to accept and carry out the decisions of the Security Council and, in this respect, to take actions which are consistent with their obligations under the United Nations Charter.

B. Clarification of Unresolved Issues

4. In November 2011, the Board adopted resolution GOV/2011/69, in which, inter alia, it stressed that it was essential for Iran and the Agency to intensify their dialogue aimed at the urgent resolution of all outstanding substantive issues for the purpose of providing clarifications regarding those issues, including access to all relevant information, documentation, sites, material and personnel in Iran. In that resolution, the Board also called on Iran to engage seriously and without preconditions in talks aimed at restoring international confidence in the exclusively peaceful nature of Iran's nuclear programme. In light of this, between January and the beginning of September 2012, Agency and Iranian officials held six rounds of talks in Vienna and Tehran, including during a visit by the Director General to Tehran in May 2012. However, no concrete results were achieved.[6]

5. On 13 September 2012, the Board adopted resolution GOV/2012/50, in which, inter alia, it decided that Iranian cooperation with Agency requests aimed at the resolution of all outstanding issues was essential and urgent in order to restore international confidence in the exclusively peaceful nature of Iran's nuclear programme. The Board also stressed that it was essential for Iran to immediately conclude and implement a structured approach for resolving outstanding issues related to possible military dimensions to its nuclear programme, including, as a first step, providing the Agency with the access it had requested to relevant sites. Immediately following the adoption of that resolution, the Agency took steps to engage Iran in further talks.[7]

6. Since the Director General's November 2012 report, Agency and Iranian officials have held three further rounds of talks in Tehran — on 13 December 2012, 16 and 17 January 2013 and 13 February 2013 — aimed at finalizing the structured approach document.[8] While the Secretariat's commitment to continued dialogue is unwavering, it has not been possible to reach agreement with Iran on the structured approach or to begin substantive work on the outstanding issues, including those related to possible military dimensions to Iran's nuclear programme.

C. Facilities Declared under Iran's Safeguards Agreement

7. Under its Safeguards Agreement, Iran has declared to the Agency 16 nuclear facilities and nine locations outside facilities where nuclear material is customarily used (LOFs).[9] Notwithstanding that certain of the activities being undertaken by Iran at some of the facilities are contrary to the relevant resolutions of the Board of Governors and the Security Council, as indicated below, the Agency continues to verify the non-diversion of declared material at these facilities and LOFs.

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[6] GOV/2012/37, para. 8.

[7] GOV/2012/55, para. 6.

[8] The current focus of the document is on the issues outlined in the Annex to the Director General's November 2011 report. The other outstanding issues will need to be addressed separately.

[9] All of the LOFs are situated within hospitals.

D. Enrichment Related Activities

8. Contrary to the relevant resolutions of the Board of Governors and the Security Council, Iran has not suspended its enrichment related activities in the declared facilities referred to below. All of these activities are under Agency safeguards, and all of the nuclear material, installed cascades and the feed and withdrawal stations at those facilities are subject to Agency containment and surveillance.[10]

9. Iran has stated that the purpose of enriching UF_6 up to 5% U-235 is the production of fuel for its nuclear facilities[11] and that the purpose of enriching UF_6 up to 20% U-235 is the manufacture of fuel for research reactors.[12]

10. Since Iran began enriching uranium at its declared facilities, it has produced at those facilities:

- 8271 kg (+660 kg since the Director General's previous report) of UF_6 enriched up to 5% U-235, of which 5974 kg remain in the form of UF_6 enriched up to 5% U-235[13] and the rest has been further processed (as detailed in paras. 19 and 25-27 below); and
- 280 kg (+47 kg since the Director General's previous report) of UF_6 enriched up to 20% U-235, of which 167 kg remain in the form of UF_6 enriched up to 20% U-235[14] and the rest has been further processed (as detailed in para. 45 below).

D.1. Natanz

11. **Fuel Enrichment Plant:** FEP is a centrifuge enrichment plant for the production of low enriched uranium (LEU) enriched up to 5% U-235, which was first brought into operation in 2007. The plant is divided into Production Hall A and Production Hall B. According to design information submitted by Iran, eight units are planned for Production Hall A, with 18 cascades in each unit, which totals approximately 25,000 centrifuges in 144 cascades. Iran has yet to provide the corresponding design information for Production Hall B.

12. As of 19 February 2013, Iran had fully installed 74 cascades in Production Hall A, partially installed three other cascades and completed preparatory installation work for the other 67 cascades.[15] On that date, Iran declared that it was feeding 53 of the fully installed cascades with natural UF_6.

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[10] In line with normal safeguards practice, small amounts of nuclear material (e.g., some waste and samples) may not be subject to containment and surveillance.

[11] As declared in Iran's design information questionnaires (DIQs) for the Fuel Enrichment Plant (FEP) at Natanz.

[12] GOV/2010/10, para. 8; as declared in the DIQ for the Fuel Plate Fabrication Plant (FPFP).

[13] This comprises nuclear material in storage, as well as nuclear material in the cold traps and still inside cylinders attached to the enrichment process.

[14] This comprises nuclear material in storage, nuclear material in the cold traps and still inside cylinders attached to the enrichment process, and nuclear material in cylinders attached to the conversion process.

[15] As of 19 February 2013, 12,669 IR-1 centrifuges (+2,255 since the Director General's previous report) and, in two cascades, 180 IR-2m centrifuges and empty centrifuge casings were installed in FEP.

13. In a letter dated 23 January 2013, Iran informed the Agency that IR-2m centrifuges "will be used" in one of the units of Production Hall A.[16] At the request of the Agency, Iran, in a letter dated 6 February 2013, provided additional information on the planned cascade configuration for the unit that would comprise IR-2m centrifuges and provided other related technical information. On 6 February 2013, the Agency observed that Iran had started the installation of IR-2m centrifuges and empty centrifuge casings. This is the first time that centrifuges more advanced than the IR-1 have been installed in FEP.

14. As a result of the physical inventory verification (PIV) carried out by the Agency at FEP between 20 October 2012 and 11 November 2012, the Agency verified, within measurement uncertainties normally associated with such a facility, the inventory of nuclear material as declared by Iran on 21 October 2012.

15. The Agency has confirmed that, as of 21 October 2012, 85 644 kg of natural UF_6 had been fed into the cascades since production began in February 2007, and a total of 7451 kg of UF_6 enriched up to 5% U-235 had been produced. Iran has estimated that, between 22 October 2012 and 3 February 2013, a total of 9106 kg of natural UF_6 was fed into the cascades and a total of approximately 820 kg of UF_6 enriched up to 5% U-235 was produced, which would result in a total production of 8271 kg of UF_6 enriched up to 5% U-235 since production began.

16. Based on the results of the analysis of environmental samples taken at FEP since February 2007,[17] and other verification activities, the Agency has concluded that the facility has operated as declared by Iran in the relevant design information questionnaire (DIQ).

17. **Pilot Fuel Enrichment Plant:** PFEP is a research and development (R&D) facility, and a pilot LEU production facility, which was first brought into operation in October 2003. It has a cascade hall that can accommodate six cascades, and is divided between an area designated by Iran for the production of UF_6 enriched up to 20% U-235 (Cascades 1 and 6) and an area designated by Iran for R&D (Cascades 2, 3, 4 and 5).

18. ***Production area:*** As of 12 February 2013, Iran was continuing to feed low enriched UF_6 into two interconnected cascades (Cascades 1 and 6) containing a total of 328 IR-1 centrifuges.

19. As previously reported,[18] the Agency has verified that, as of 15 September 2012, 1119.6 kg of UF_6 enriched up to 5% U-235 produced at FEP had been fed into the cascades in the production area since production began in February 2010, and that a total of 129.1 kg of UF_6 enriched up to 20% U-235 had been produced. Iran has estimated that, between 16 September 2012 and 12 February 2013, a total of 145.5 kg of UF_6 enriched up to 5% U-235 produced at FEP was fed into the cascades in the production area and that approximately 20.8 kg of UF_6 enriched up to 20% U-235 were produced. This would result in a total production of 149.9 kg of UF_6 enriched up to 20% U-235 at PFEP since production began.

[16] GOV/INF/2013/3, 30 January 2013.
[17] Results are available to the Agency for samples taken up to 7 August 2012.
[18] GOV/2012/55, para. 18.

20. ***R&D area***: Since the Director General's previous report, Iran has installed two new types of centrifuge (IR-6 and IR-6s) and has been intermittently feeding natural UF_6 into them as single machines. Iran has also been intermittently feeding natural UF_6 into IR-2m and IR-4 centrifuges, sometimes into single machines and sometimes into cascades of various sizes.[19]

21. Between 12 November 2012 and 12 February 2013, a total of approximately 469.2 kg of natural UF_6 was fed into centrifuges in the R&D area, but no LEU was withdrawn as the product and the tails were recombined at the end of the process.

22. In an updated DIQ dated 6 February 2013, Iran informed the Agency that it planned to start withdrawing from Cascades 4 and 5 the product and the tails separately, rather than recombining them at the end of the process as it had done previously. The Agency and Iran are discussing how safeguards measures will need to be modified as a result of the changes in the operation of these cascades. Iran has agreed not to start operations until such safeguards measures are in place.

23. Based on the results of the analysis of the environmental samples taken at PFEP,[20] and other verification activities, the Agency has concluded that the facility has operated as declared by Iran in the relevant DIQ.

D.2. Fordow

24. **Fordow Fuel Enrichment Plant**: FFEP is, according to the DIQ of 18 January 2012, a centrifuge enrichment plant for the production of UF_6 enriched up to 20% U-235 and the production of UF_6 enriched up to 5% U-235. Additional information from Iran is still needed in connection with this facility, particularly in light of the difference between the original stated purpose of the facility and the purpose for which it is now being used.[21] The facility, which was first brought into operation in 2011, is designed to contain up to 2976 centrifuges in 16 cascades, divided between Unit 1 and Unit 2. To date, all of the centrifuges installed are IR-1 machines.[22] Iran has yet to inform the Agency which of the cascades are to be used for enrichment up to 5% U-235 and/or for enrichment up to 20% U-235.[23]

25. As of 17 February 2013, Iran was continuing to feed four cascades (configured in two sets of two interconnected cascades) of Unit 2 with UF_6 enriched up to 5% U-235;[24] none of the other 12 cascades had been fed with UF_6.[25]

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[19] On 19 February 2013, there were 29 IR-4 centrifuges, six IR-6 centrifuges and two IR-6s centrifuges installed in Cascade 2, nine IR-2m centrifuges and two IR-1 centrifuges installed in Cascade 3, 164 IR-4 centrifuges installed in Cascade 4 and 162 IR-2m centrifuges installed in Cascade 5.

[20] Results are available to the Agency for samples taken up to 22 October 2012.

[21] GOV/2009/74, paras. 7 and 14; GOV/2012/9, para. 24. To date, Iran has provided the Agency with an initial DIQ and three revised DIQs. Each of the DIQs has stated a different purpose for the facility.

[22] As of 17 February 2013, 2,710 centrifuges were installed at FFEP (-74 since the Director General's previous report).

[23] In a letter to the Agency dated 23 May 2012, Iran stated that the Agency would be notified about the production level of the cascades prior to their operation (GOV/2012/23, para. 25).

[24] The number of centrifuges being fed (696) remains unchanged from that reflected in the Director General's previous report (GOV/2012/55, para. 23).

[25] As of 17 February 2013, all eight cascades in Unit 1, and three of the four remaining cascades in Unit 2, had been subjected to vacuum testing and made ready for feeding with UF_6. The fourth cascade in Unit 2 was incomplete.

26. Between 17 November 2012 and 3 December 2012, the Agency conducted a PIV at FFEP and verified that, as of 17 November 2012, a total of 769 kg of UF_6 enriched up to 5% U-235 produced at FEP had been fed into cascades at FFEP since production began in December 2011, and that 101.2 kg of UF_6 enriched up to 20% U-235 had been produced. As a result of this PIV, the Agency verified, within measurement uncertainties normally associated with such a facility, the inventory of nuclear material as declared by Iran on 17 November 2012.

27. Iran has estimated that between 18 November 2012 and 10 February 2013, a total of 210.1 kg of UF_6 enriched up to 5% U-235 was fed into cascades at FFEP, and that approximately 28.7 kg of UF_6 enriched up to 20% U-235 were produced. This would result in a total production of 129.9 kg of UF_6 enriched up to 20% U-235 since production began, 125.3 kg of which have been withdrawn from the process and verified by the Agency.

28. Based on the results of the analysis of environmental samples taken at FFEP,[26] and other verification activities, the Agency has concluded that the facility has operated as declared by Iran in its most recent DIQ for FFEP.

D.3. Other Enrichment Related Activities

29. Iran has not provided a substantive response to Agency requests for further information in relation to announcements made by Iran concerning the construction of ten new uranium enrichment facilities, the sites for five of which, according to Iran, have been decided.[27] Nor has Iran provided information, as requested by the Agency, in connection with its announcement on 7 February 2010 that it possessed laser enrichment technology.[28] As a result of Iran's lack of cooperation on those issues, the Agency is unable to verify and report fully on these matters.

E. Reprocessing Activities

30. Pursuant to the relevant resolutions of the Board of Governors and the Security Council, Iran is obliged to suspend its reprocessing activities, including R&D.[29] Iran has stated that it "does not have reprocessing activities".[30]

31. The Agency has continued to monitor the use of hot cells at the Tehran Research Reactor (TRR)[31] and the Molybdenum, Iodine and Xenon Radioisotope Production (MIX) Facility.[32] The Agency carried out an inspection and design information verification (DIV) at TRR on 12 February 2013, and a DIV at the MIX Facility on 13 February 2013. It is only with respect to TRR, the MIX Facility and the other facilities to which the Agency has access that the Agency can confirm that there are no ongoing reprocessing related activities in Iran.

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[26] Results are available to the Agency for samples taken up to 28 October 2012.

[27] "Iran Specifies Location for 10 New Enrichment Sites", Fars News Agency, 16 August 2010.

[28] Cited on the website of the Presidency of the Islamic Republic of Iran, 7 February 2010, at http://www.president.ir/en/?ArtID=20255.

[29] S/RES/1696 (2006), para. 2; S/RES/1737 (2006), para. 2; S/RES/1747 (2007), para. 1; S/RES/1803 (2008), para. 1; S/RES/1835 (2008), para. 4; S/RES/1929 (2010), para. 2.

[30] Letter to the Agency dated 15 February 2008.

[31] TRR is a 5 MW reactor which operates with 20% U-235 enriched fuel and is used for the irradiation of different types of targets and for research and training purposes.

[32] The MIX Facility is a hot cell complex for the separation of radiopharmaceutical isotopes from targets, including uranium, irradiated at TRR. The MIX Facility is not currently processing any uranium targets.

F. Heavy Water Related Projects

32. Contrary to the relevant resolutions of the Board of Governors and the Security Council, Iran has not suspended work on all heavy water related projects, including the ongoing construction of the heavy water moderated research reactor at Arak, the Iran Nuclear Research Reactor (IR-40 Reactor), which is under Agency safeguards.[33]

33. On 11 February 2013, the Agency carried out a DIV at the IR-40 Reactor at Arak and observed that the installation of cooling and moderator circuit piping was almost complete. As previously reported, Iran has stated that the operation of the IR-40 Reactor is expected to commence in the first quarter of 2014.[34]

34. Since its visit to the Heavy Water Production Plant (HWPP) on 17 August 2011, the Agency has not been provided with further access to the plant. As a result, the Agency is again relying only on satellite imagery to monitor the status of HWPP. Based on recent images, the plant appears to continue to be in operation. To date, Iran has not permitted the Agency to take samples of the heavy water stored at the Uranium Conversion Facility (UCF).[35] Since the Director General's previous report, the Agency has reiterated its requests to Iran for access to HWPP and for the taking of samples of the aforementioned heavy water. Iran has again not provided the requested access.

G. Uranium Conversion and Fuel Fabrication

35. Although Iran is obliged to suspend all enrichment related activities and heavy water related projects, it is conducting a number of activities at UCF, the Fuel Manufacturing Plant (FMP) and the Fuel Plate Fabrication Plant (FPFP) at Esfahan, as indicated below, which are in contravention of those obligations, notwithstanding that the facilities are under Agency safeguards.

36. Since Iran began conversion and fuel fabrication at its declared facilities, it has, inter alia:

- Produced 550 tonnes of natural UF_6 at UCF,[36] of which 107 tonnes have been transferred to FEP;
- Fed into the R&D conversion process at UCF53 kg of UF_6 enriched up to 3.34% U-235 and produced 24 kg of uranium in the form of UO_2;[37]
- Fed into the conversion process at FPFP 111 kg of UF_6 enriched up to 20% U-235 (+28.3 kg since the Director General's previous report) and produced 50 kg of uranium in the form of U_3O_8; and
- Transferred to TRR five fuel assemblies containing uranium enriched up to 20% U-235 and two fuel assemblies containing uranium enriched to 3.34% U-235.

[33] S/RES/1737 (2006), para. 2; S/RES/1747 (2007), para. 1; S/RES/1803 (2008), para. 1; S/RES/1835 (2008), para. 4; S/RES/1929 (2010), para. 2.
[34] GOV/2012/55, para. 29.
[35] GOV/2010/10, paras. 20 and 21.
[36] GOV/2012/37, para. 33.
[37] GOV/2012/55, para. 35.

37. **Uranium Conversion Facility:** As a result of the PIV carried out by the Agency at UCF in March 2012 and following the receipt of further information from Iran,[38] the Agency verified, within measurement uncertainties normally associated with such a facility, the inventory of nuclear material as declared by Iran on 2 March 2012.

38. Since the previous report, Iran has informed the Agency that it intends to conduct R&D conversion activities involving the use of natural UF_6 for the production of UO_2.[39]

39. According to Iran, as of 3 February 2013, it had produced 9056 kg of natural uranium in the form of UO_2 through the conversion of uranium ore concentrate. As of 5 February 2013, the Agency had verified that Iran had transferred 3823 kg of this UO_2 to FMP.

40. Since the Director General's previous report, Iran has informed the Agency that it has recovered — in the form of liquid scrap, sludge and solid waste — the majority of the nuclear material that spilled onto the floor of the facility when a storage tank ruptured last year.[40] The Agency is currently assessing Iran's declaration.

41. **Fuel Manufacturing Plant:** As a result of the PIV carried out by the Agency at FMP between 4 and 6 September 2012, the Agency verified, within measurement uncertainties normally associated with such a facility, the inventory of nuclear material as declared by Iran on 4 September 2012.

42. On 26 November 2012, the Agency verified a prototype IR-40 natural uranium fuel assembly before its transfer to TRR for irradiation testing.

43. On 9 and 11 February 2013, the Agency carried out an inspection and a DIV at FMP and confirmed that the manufacture of pellets for the IR-40 Reactor using natural UO_2 was ongoing.

44. **Fuel Plate Fabrication Plant:** As a result of the PIV carried out by the Agency at FPFP on 29 September 2012, the Agency verified, within measurement uncertainties normally associated with such a facility, the inventory of nuclear material as declared by Iran on that date.

45. On 27 September 2012, Iran suspended converting UF_6 enriched up to 20% U-235 into U_3O_8 at FPFP. Iran has estimated that, between 2 December 2012, when it resumed such conversion activities, and 11 February 2013, 28.3 kg of UF_6 enriched up to 20% U-235 were fed into the conversion process at FPFP and 12 kg of uranium were produced in the form of U_3O_8. This would bring the total amount of UF_6 enriched up to 20% U-235 which had been fed into the conversion process to 111 kg and the total amount of uranium in the form of U_3O_8 which had been produced to 50 kg.[41]

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[38] GOV/2012/55, para. 33.

[39] Iran had previously conducted similar R&D conversion activities using UF_6 enriched up to 3.34% U-235 (GOV/2012/55, para. 35).

[40] GOV/2012/55, para. 36.

[41] GOV/2012/55, para. 38. In addition, approximately 1.6 kg of UF_6 enriched up to 20% U-235 have been blended with natural UF_6 at PFEP (GOV/2012/23, para. 19).

46. On 12 and 13 February 2013, the Agency verified seven fuel assemblies and 95 fuel plates present at the facility.

H. Possible Military Dimensions

47. Previous reports by the Director General have identified outstanding issues related to possible military dimensions to Iran's nuclear programme and actions required of Iran to resolve these.[42] Since 2002, the Agency has become increasingly concerned about the possible existence in Iran of undisclosed nuclear related activities involving military related organizations, including activities related to the development of a nuclear payload for a missile. Iran has dismissed the Agency's concerns, largely on the grounds that Iran considers them to be based on unfounded allegations.[43]

48. The Annex to the Director General's November 2011 report (GOV/2011/65) provided a detailed analysis of the information available to the Agency, indicating that Iran has carried out activities that are relevant to the development of a nuclear explosive device. This information is assessed by the Agency to be, overall, credible.[44] Since November 2011, the Agency has obtained more information which further corroborates the analysis contained in the aforementioned Annex.

49. In resolution 1929 (2010), the Security Council reaffirmed Iran's obligations to take the steps required by the Board of Governors in its resolutions GOV/2006/14 and GOV/2009/82, and to cooperate fully with the Agency on all outstanding issues, particularly those which give rise to concerns about the possible military dimensions to Iran's nuclear programme, including by providing access without delay to all sites, equipment, persons and documents requested by the Agency.[45] As indicated in Section B above, since the publication of the Director General's November 2011 report, although the Board has adopted two resolutions addressing the urgent need to resolve outstanding issues regarding the Iranian nuclear programme, including those which need to be clarified to exclude the existence of possible military dimensions, it has not been possible to finalize the structured approach document or to begin substantive work in this regard.

50. **Parchin:** As stated in the Annex to the Director General's November 2011 report,[46] information provided to the Agency by Member States indicates that Iran constructed a large explosives containment vessel in which to conduct hydrodynamic experiments;[47] such experiments would be strong indicators of possible nuclear weapon development. The information also indicates that the containment vessel was installed at the Parchin site in 2000. The location at the Parchin site of the vessel was only identified in March 2011, and the Agency notified Iran of that location in January 2012.

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[42] See, for example: GOV/2011/65, paras. 38-45 and Annex; GOV/2011/29, para. 35; GOV/2011/7, Attachment; GOV/2010/10, paras. 40-45; GOV/2009/55, paras. 18-25; GOV/2008/38, paras. 14-21; GOV/2008/15, paras. 14-25 and Annex; GOV/2008/4, paras. 35-42.

[43] GOV/2012/9, para. 8.

[44] GOV/2011/65, Annex, Section B.

[45] S/RES/1929 (2010), paras. 2 and 3.

[46] GOV/2011/65, Annex, para. 49.

[47] GOV/2011/65, Annex, para. 47.

51. As previously reported, satellite imagery available to the Agency for the period from February 2005 to January 2012 shows virtually no activity at or near the building housing the containment vessel (chamber building). Since the Agency's first request for access to this location, however, satellite imagery shows that extensive activities and resultant changes have taken place at this location.[48] The Agency has reiterated during each round of talks with Iran its request for access to the location at the Parchin site, but Iran has not acceded to that request.

52. Among the most significant developments observed by the Agency at this location since the Director General's report in November 2012 are:

- Reinstatement of some of the chamber building's features (e.g. wall panels and exhaust piping);
- Alterations to the roofs of the chamber building and the other large building;
- Dismantlement and reconstruction of the annex to the other large building;
- Construction of one small building at the same place where a building of similar size had previously been demolished;
- Spreading, levelling and compacting of another layer of material over a large area; and
- Installation of a fence that divides the location into two areas.

53. As previously reported, Iran has stated that the allegation of nuclear activities at the Parchin site is "baseless" and that "the recent activities claimed to be conducted in the vicinity of the location of interest to the Agency, has nothing to do with specified location by the Agency".[49] To date, Iran has only provided an explanation for the soil displacement by trucks, which it stated was "due to constructing the Parchin new road".[50]

54. In light of the extensive activities that have been, and continue to be, undertaken by Iran at the aforementioned location on the Parchin site, when the Agency gains access to the location, its ability to conduct effective verification will have been seriously undermined. While the Agency continues to assess that it is necessary to have access to this location without further delay, it is essential that Iran also provide without further delay substantive answers to the Agency's detailed questions regarding the Parchin site and the foreign expert,[51] as requested by the Agency in February 2012.[52]

I. Design Information

55. Contrary to its Safeguards Agreement and relevant resolutions of the Board of Governors and the Security Council, Iran is not implementing the provisions of the modified Code 3.1 of the Subsidiary Arrangements General Part to Iran's Safeguards

[48] For a list of the most significant developments observed by the Agency at this location between February 2012 and the publication of the Director General's November 2012 report, see GOV/2012/55, para. 44.

[49] GOV/2012/37, para. 43.

[50] INFCIRC/847, 20 December 2012, para. 58.

[51] GOV/2011/65, Annex, para. 44.

[52] GOV/2012/9, para. 8.

Agreement.[53] It is important to note that the absence of such early information reduces the time available for the Agency to plan the necessary safeguards arrangements, especially for new facilities, and reduces the level of confidence in the absence of other nuclear facilities.[54]

56. Contrary to Iran's obligations under the modified Code 3.1, Iran has not provided the Agency with an updated DIQ for the IR-40 Reactor since 2006. The lack of up-to-date information is having an adverse impact on the Agency's ability to effectively verify the design of the facility and to implement an effective safeguards approach.[55]

57. Iran's response to Agency requests that Iran confirm, or provide further information regarding, its stated intention to construct new nuclear facilities is that it would provide the Agency with the required information in "due time" rather than as required by the modified Code 3.1 of the Subsidiary Arrangements General Part to its Safeguards Agreement.[56]

J. Additional Protocol

58. Contrary to the relevant resolutions of the Board of Governors and the Security Council, Iran is not implementing its Additional Protocol. The Agency will not be in a position to provide credible assurance about the absence of undeclared nuclear material and activities in Iran unless and until Iran provides the necessary cooperation with the Agency, including by implementing its Additional Protocol.[57]

K. Other Matters

59. The Agency and Iran continue to discuss the discrepancy between the amount of nuclear material declared by the operator and that measured by the Agency in connection with conversion experiments carried out by Iran at the Jabr Ibn Hayan Multipurpose Research Laboratory (JHL) between 1995 and 2002.[58]

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[53] In accordance with Article 39 of Iran's Safeguards Agreement, agreed Subsidiary Arrangements cannot be changed unilaterally; nor is there a mechanism in the Safeguards Agreement for the suspension of provisions agreed to in the Subsidiary Arrangements. Therefore, as previously explained in the Director General's reports (see, for example, GOV/2007/22, 23 May 2007), the modified Code 3.1, as agreed to by Iran in 2003, remains in force. Iran is further bound by operative paragraph 5 of Security Council resolution 1929 (2010) to "comply fully and without qualification with its IAEA Safeguards Agreement, including through the application of modified Code 3.1".

[54] GOV/2010/10, para. 35.

[55] GOV/2012/37, para. 46.

[56] GOV/2011/29, para. 37; GOV/2012/23, para. 29.

[57] Iran's Additional Protocol was approved by the Board on 21 November 2003 and signed by Iran on 18 December 2003, although it has not been brought into force. Iran provisionally implemented its Additional Protocol between December 2003 and February 2006.

[58] GOV/2003/75, paras. 20-25 and Annex 1; GOV/2004/34, para. 32, and Annex, paras. 10-12; GOV/2004/60, para. 33, and Annex, paras. 1-7; GOV/2011/65, para. 49.

60. On 12 February 2013, three fuel assemblies that had been produced in Iran and which contain nuclear material that was enriched in Iran up to 3.5% and up to 20% U-235 were in the core of TRR.[59]

61. On 26 and 27 November 2012, the Agency conducted a PIV at the Bushehr Nuclear Power Plant (BNPP)and verified that the fuel assemblies that previously had been transferred to the spent fuel pond had since been reloaded into the reactor core.[60] During an inspection conducted by the Agency at BNPP on 16 and 17 February 2013, Iran informed the Agency that the reactor was shut down.

L. Summary

62. While the Agency continues to verify the non-diversion of declared nuclear material at the nuclear facilities and LOFs declared by Iran under its Safeguards Agreement, as Iran is not providing the necessary cooperation, including by not implementing its Additional Protocol, the Agency is unable to provide credible assurance about the absence of undeclared nuclear material and activities in Iran, and therefore to conclude that all nuclear material in Iran is in peaceful activities.[61]

63. Iran has started the installation of more advanced centrifuges (IR-2m) at FEP for the first time.

64. Contrary to the Board resolutions of November 2011 and September 2012 and despite the intensified dialogue between the Agency and Iran since January 2012 in nine rounds of talks, it has not been possible to agree on the structured approach. The Director General is unable to report any progress on the clarification of outstanding issues, including those relating to possible military dimensions to Iran's nuclear programme.

65. It is a matter of concern that the extensive and significant activities which have taken place since February 2012 at the location within the Parchin site to which the Agency has repeatedly requested access will have seriously undermined the Agency's ability to undertake effective verification. The Agency reiterates its request that Iran, without further delay, provide both access to that location and substantive answers to the Agency's detailed questions regarding the Parchin site and the foreign expert.

66. Given the nature and extent of credible information available, the Agency continues to consider it essential for Iran to engage with the Agency without further delay on the substance of the Agency's concerns. In the absence of such engagement, the Agency will not be able to resolve concerns about issues regarding the Iranian nuclear programme, including those which need to be clarified to exclude the existence of possible military dimensions to Iran's nuclear programme.

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[59] On 12 February 2013, the core of TRR comprised a total of 33 fuel assemblies.

[60] GOV/2012/55, para. 52.

[61] The Board has confirmed on numerous occasions, since as early as 1992, that paragraph 2 of INFCIRC/153 (Corr.), which corresponds to Article 2 of Iran's Safeguards Agreement, authorizes and requires the Agency to seek to verify both the non-diversion of nuclear material from declared activities (i.e. correctness) and the absence of undeclared nuclear activities in the State (i.e. completeness) (see, for example, GOV/OR.864, para. 49 and GOV/OR.865, paras. 53-54).

67. The Director General continues to urge Iran to take steps towards the full implementation of its Safeguards Agreement and its other obligations and to engage with the Agency to achieve concrete results on all outstanding substantive issues, as required in the binding resolutions of the Board of Governors and the mandatory Security Council resolutions.

68. The Director General will continue to report as appropriate.